

CLAIMS

We claim:

- 1 1. A system architecture for an internet telephone gateway
2 server, comprising:
3 hardware for interfacing with the internet and a
4 public switched telephone network; and
5 software for connecting telephone calls between
6 transmitters and receivers, said software having
7 the capability of dynamically changing a level
8 of redundancy of a forward error correction
9 algorithm from packet-to-packet in a data stream
10 so as to accommodate data dropouts,
11 whereby aural data in a packet is entirely
12 duplicated to maintain the voice quality
13 present prior to the data dropout.
- 1 2. The system architecture of claim 1, wherein said gateway
2 server supports full duplex voice transmission with a
3 latency of less than 500 milliseconds.
- 1 3. The system architecture of claim 1, wherein said software
2 has the capability of dynamically varying the size or
3 bundling of a data packet from packet-to-packet.
- 1 4. The system architecture of claim 1, wherein said software
2 has the capability of dynamically varying from one codec
3 to another codec from packet-to-packet.
- 1 5. The system architecture of claim 1, wherein said software
2 varies the size or bundling of data packets from packet-
3 to-packet.

1 6. A method for eliminating packet losses in an Internet
2 telephone communication, comprising the steps of:
3 receiving an Internet telephone call from a
4 personal computer or a telephone;
5 digitizing said telephone call into a digital data
6 stream;
7 determining a level of redundancy of a forward
8 error correction algorithm based upon Internet
9 conditions, the level of redundancy varying
10 between $k = 0$ and M ; and
11 applying said level of redundancy to a part of said
12 digital data stream,
13 wherein an i^{th} data packet is repeated k times
14 in said digital data stream, and
15 whereby aural data in the i^{th} data packet is
16 duplicated to maintain the voice quality
17 present prior to the packet loss.